Work Plan and Methodology

1. Review of literature from different journals and e-journals pertaining to antidiabetic activity & anticonvulsant activity.
2. Folklore medicinal uses of plants used as antidiabetic & anticonvulsant from *Indian materia medica* which gives valuable information regarding the medicinal properties.
3. Collection of plant material and authentication of the plant.
4. Size reduction of the collected plant material.
5. Extraction of the crude drug by different solvents, various methods used for extraction of drugs includes **a. Infusion b.Decoction c.Digestion d.Maceration e.Percolation f.Soxhlet extraction.**
6. Preliminary screening for extracted product.
7. Characterization and isolation of the drug by
    a. Thin layer chromatography b.I.R spectroscopy c.^{1}HNMR spectroscopy
8. Formulation & dissolution studies of *Vitex negundo*.
9. Animals selected for screening antidiabetic activity were Male Wistar rats weighing 150-175 g were selected.
10. The animals selected for screening anticonvulsant activity were albino mice weighing 20-25 g, Albino Wistar rats weighing 120-125 g were selected.
11. Pharmacological activity & acute oral toxicity studies of extracted plant material as per ICH & OECD guidelines.
12. Identification of the probable mechanism at receptor by screening methods
    a. **Streptozotocin induced diabetes**
    b. **Streptozotocin-Nicotinamide induced diabetes**.
    c. Maximum electroshock-induced seizures (MES Method)
    d. Pentylenetetrazole-induced seizures(PTZ Method)

e. **Strychnine-induced seizures**
f. **Picrotoxin induced seizures**
g. **Lithium-pilocarpine induced seizures.**

13. Acute oral toxicity studies.

14. Interpretation of results by statistical methods.